

AMENDMENTS IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

1. (Currently Amended) An implantable device for repairing a cardiac valve having an annulus, two or more leaflets and a subvalvular apparatus, the implantable device comprising:
a ring for attachment to the valve annulus having a valve inflow end and a valve outflow end, the ring defining a plane; and
a restraining structure associated with said ring and extending inward therefrom inwardly from the ring and generally within the plane of the ring, wherein the restraining structure is arranged to restrain prolapse movement of for restraining abnormal motion of at least a portion of any one or more of the valve leaflets while minimizing leaflet contact, blood flow turbulence and blood flow obstruction to within the inflow side of the cardiac valve.
2. (Previously Presented) The device of claim 1 wherein said restraining structure comprises one or more restraining members.
3. (Original) The device of claim 2 wherein one or more of said restraining members are rigid or semi-rigid.
4. (Original) The device of claim 2 wherein one or more of said restraining members are substantially straight.
5. (Withdrawn) The device of claim 2 wherein one or more of said restraining members are curved or bowed.
6. (Original) The device of claim 2 wherein one or more of said restraining members are flexible.

7. (Original) The device of claim 6 wherein one or more of said flexible restraining members are elastic.

8. (Original) The device of claim 6 wherein one or more of said flexible restraining members are non-elastic.

9. (Previously Presented) The device of claim 2 wherein one or more of said restraining members have a string configuration.

10. (Previously Presented) The device of claim 2 wherein one or more of said restraining members are flat or have a ribbon configuration.

11. (Original) The device of claim 2 wherein the one or more restraining members extend across from one portion of the ring to another portion of the ring.

12. (Original) The device of claim 2 wherein the one or more restraining members are of similar thickness, shape, rigidity and elasticity.

13. (Original) The device of claim 2 wherein the device comprises at least two restraining members.

14. (Withdrawn) The device of claim 13 wherein the at least two restraining members have different thicknesses.

15. (Withdrawn) The device of claim 13 wherein the at least two restraining members have different shapes.

16. (Withdrawn) The device of claim 13 wherein the at least two restraining members vary in rigidity or elasticity.

17. (Original) The device of claim 13 wherein a primary restraining member extends between a portion of the ring to another portion of the ring.

18. (Withdrawn) The device of claim 17 wherein a secondary restraining member extends between the primary restraining member and the ring.

19. (Withdrawn) The device of claim 15 wherein said restraining structure comprises a plurality of secondary restraining members extending between said primary restraining member and said ring.

20. (Original) The device of claim 13 wherein said at least two restraining members are substantially parallel to each other.

21. (Withdrawn) The device of claim 13 wherein said at least two restraining members are in a non-parallel relationship with each other.

22. (Withdrawn) The device of claim 21 wherein said at least two restraining members form a crisscross pattern.

23. (Withdrawn) The device of claim 21 wherein said at least two restraining members form a zigzag pattern.

24. (Original) The device of claim 2 wherein the device comprises a plurality of restraining members.

25. (Withdrawn) The device of claim 24 wherein the plurality of restraining members form a star-like pattern.

26. (Withdrawn) The device of claim 24 wherein the plurality of restraining members form a web-like pattern.

27. (Original) The device of claim 1 wherein said ring has a closed or complete ring configuration.

28. (Original) The device of claim 27 wherein said ring has a D-shaped configuration.

29. (Withdrawn) The device of claim 27 wherein said ring has a circular configuration.

30. (Withdrawn) The device of claim 1 wherein said ring has an open configuration.

31. (Withdrawn) The device of claim 30 wherein said ring has a C-shaped configuration.

32. (Withdrawn) The device of claim 30 wherein said ring has a saddle-shaped configuration.

33. (Withdrawn) A method for repairing a defective cardiac valve having a valve annulus and at least one valve leaflet, comprising the steps of:

accessing the defective cardiac valve;

providing a device comprising a restraining structure; and

implanting said device at the defective cardiac valve wherein said restraining structure is positioned such that said restraining structure restrains the abnormal motion of at least a portion of one valve leaflet.

34. (Withdrawn) The method of claim 33 wherein said restraining structure operatively restrains at least a portion of one valve leaflet from prolapsing during systole.

35. (Withdrawn) The method of claim 33 wherein said restraining structure operatively restrains at least a portion of two or more valve leaflets from prolapsing during systole.

36. (Withdrawn) The method of claim 33 wherein said cardiac valve is the mitral valve and the at least one valve leaflet is the posterior leaflet of the mitral valve.

37. (Withdrawn) The method of claim 33 wherein said cardiac valve is the mitral valve and the at least one leaflet is the anterior leaflet of the mitral valve.

38. (Withdrawn) The method of claim 33 wherein said device further comprises an annuloplasty ring wherein said restraining structure is associated with said annuloplasty ring.

39. (Withdrawn) The method of claim 38 wherein said step of implanting said device comprises attaching said annuloplasty ring to the valve annulus.

40. (Withdrawn) The method of claim 38 wherein said step of implanting said device comprises positioning said restraining structure with respect to said at least one valve leaflet whereby abnormal motion of said at least one valve leaflet is restrained.

41. (Withdrawn) A kit for repairing a defective cardiac valve, said kit comprising a plurality of the device of claim 1.

42. (Withdrawn) The kit of claim 41 wherein said cardiac valve is the mitral valve.

43. (Withdrawn) The kit of claim 41 wherein said devices have varying sizes and/or configurations.

44. (Withdrawn) The kit of claim 41 further comprising one or more of the group consisting of an annulus sizer, a device holder, a valve tester, a suturing device, sutures and instructions for using the devices.

45. (Currently Amended) An implantable device for repairing a cardiac valve having a valve annulus and two or more valve leaflets, said device the implantable device comprising: a ring configured for attachment to the valve annulus, the ring defining a plane; and at least one member extending inwardly from the ring inward thereof and generally within the plane of the ring, wherein the at least one member is arranged to restrain prolapse movement of any one or more of the valve leaflets while minimizing leaflet contact, blood flow turbulence and blood flow obstruction.

46. (Previously Presented) The device of claim 45 wherein said at least one member is attached at a first end to an anterior segment of the ring and at a second end to a posterior segment of the ring.

47. (Previously Presented) The device of claim 45 wherein said ring is flexible.

48. (Previously Presented) The device of claim 45 wherein said at least one member is flexible.

49. (Previously Presented) The device of claim 45 wherein said at least one member is non-elastic.

50. (Withdrawn) The device of claim 45 wherein said at least one member is bowed.

51. (Previously Presented) The device of claim 45 comprising a plurality of members extending across at least a portion of the interior area of the ring.

52. (Previously Presented) The device of claim 45 comprising three to five members.

53. (Previously Presented) The device of claim 45 wherein said ring has a closed or complete ring configuration.

54. (Withdrawn) The device of claim 45 wherein said ring has an open or partial ring configuration.

55. (Previously Presented) The device of claim 45 wherein said ring comprises nickel titanium.

56. (Previously Presented) The device of claim 45 wherein said at least one member comprises nickel titanium.

57. (Currently amended) An implantable device for repairing a cardiac valve having a valve annulus and two or more valve leaflets, said device comprising:

a ring configured for attachment to the valve annulus; and

a plurality of cross members extending across at least a portion of the interior of the ring, wherein the plurality of cross members are arranged to restrain prolapse movement of any one or more of the valve leaflets while minimizing leaflet contact, blood flow turbulence and blood flow obstruction.

58. (Withdrawn) A method for repairing a defective cardiac valve having a valve annulus and at least one leaflet, the method comprising the steps of:

accessing the defective cardiac valve;

providing a device comprising a ring configured for attachment to the valve annulus and at least one member extending across at least a portion of the interior of the ring; and

attaching said ring to said valve annulus wherein said at least one member extends above at least a portion of said at least one leaflet.

59. (Withdrawn) The method of claim 58 wherein said cardiac valve is the mitral valve and said at least one leaflet is the posterior leaflet of the mitral valve.

60. (Withdrawn) The method of claim 58 wherein said cardiac valve is the mitral valve and said at least one leaflet is the posterior leaflet of the mitral valve.

61. (Withdrawn) The method of claim 58 wherein said attaching said ring to said valve annulus acts to remodel said valve to annulus to a natural condition.

62. (Withdrawn) The method of claim 58 wherein said ring is flexible.

63. (Currently amended) An implantable device for repairing a cardiac valve having a valve annulus and two or more valve leaflets, said device comprising:

a ring configured for attachment to the valve annulus, the ring defining a plane; and
at least one member permanently affixed to the ring and extending inwardly from the ring
~~inward thereof and generally within the plane, and wherein the at least one member is arranged~~
~~to restrain prolapse movement of any one or more of the valve leaflets while minimizing leaflet~~
~~contact, blood flow turbulence and blood flow obstruction.~~